

## **SPECIFICATION AMENDMENTS**

On page 5, line 26, replace the heading "Drawing" with the following new heading:

### **Brief Description of the Drawings**

Replace the paragraph extending from page 5, line 28 to page 6, line 20 with the following (marked up versions on the specification paragraphs are appended at the back of this response):

An exemplary embodiment of a liquid atomizer unit for fire extinction according to the invention will be described more fully below with reference to the drawing, in which:

fig. 1 shows a liquid atomizer unit for fire extinction according to the invention,

figs. 2a, 2b and 2c show holes and slots in the bottom of the liquid atomizer unit shown in fig. 1,

fig. 3 shows alternative holes in the side wall of the liquid atomizer unit shown in fig. 1,

fig. 4 shows the liquid atomizer unit shown in fig. 1, arranged in a nozzle housing,

fig. 5 shows the liquid atomizer unit shown in fig. 1 as part of a heat-released liquid nozzle for filled pipe systems,

fig. 6 shows the liquid atomizer unit shown in fig. 1 as part of an open liquid mist nozzle for dry pipe systems, and

fig. 7 shows the liquid atomizer unit shown in fig. 1 with an integrated liquid connection gate.

Replace the paragraph extending from page 6, line 27 to page 7, line 4 with the following paragraph:

The novelty of the invention is that it consists of a cup 1 with a bottom 2 (see fig. 1), where the bottom 2 may be penetrated by holes 3 (see fig. 2a) or one or more grooves 4, 5 (see fig. 2b, 2c), and an outer face containing a convex conical face 6 with an angle of between  $20^{\circ}$  and  $130^{\circ}$ , and the ratio of the longitudinally sectional area to the cross-sectional area of the cavity of the cup is 0.10 - 0.20. Instead of being arranged in the bottom 2 of the cup, holes or slots 8 may be arranged on the side face of the cup over the conical member 9 (see fig. 3). The holes or the slots 8 have an area of between 0.50 and 0.90 relative to the hole cross-sectional area of the cup.

Replace the paragraph extending from page 7, line 13 to line 18 with the following paragraph:

Outside the periphery 12 of the cup the mandrel 7 expands and forms a face 13 whose cross-sectional area is larger than the cross-sectional area of the cup hole and a diameter which is 70% to 130% of the diameter of the outer periphery of the cup. The face 13 forms a gap 14 between the peripheral face 12 of the cup and the mandrel face 13 which is between 0.1 mm and 2 mm wide, the gap 14 forming a second nozzle for discharge of liquid therefrom.

Replace the paragraph extending from page 7, line 20 to line 26 with the following paragraph:

The peripheral edge 15 of the mandrel may be  $45^{\circ}$  to  $90^{\circ}$ , depending on the requirement with respect to the distribution of the extinguisher. The end 16 of the mandrel is formed with an elevation 21 having a central hole 17 which

forms a first nozzle for discharge of liquid, with a diameter of 0.1 to 0.7 relative to the centre hole 10 of the mandrel which connects the centre hole 10 of the mandrel to the atmosphere. The distance between the periphery of the elevation 21 and the periphery of the bore 17 does not exceed 5 mm. The elevation is at least 1 mm high.

Replace the paragraph extending from page 8, line 7 to line 28 with the following paragraph:

When the invention is arranged in the cavity in a nozzle housing 23 (see fig. 4) with a water connection gate 24 and a concave conical face 25 having a smallest diameter smaller than the largest diameter over the conical face 6 of the invention and a conical angle larger than or equal to the conical angle of the invention, the cone of the nozzle housing will prevent the cup 1 from dropping out of the nozzle housing 23, and it will centre the cup 1 in the centre line of the nozzle housing, and the two cones will seal against each other, if water pressure is applied to the water connection gate 24 of the nozzle housing and presses through it on the bottom face 2 of the cup. Liquid will flow through the connection gate 24 of the nozzle housing, if it is not sealed, and the liquid pressure will press the two conical faces 6, 25 together, thereby providing a seal against leakage between the two conical faces 6, 25. Hereby, most of the cup 1 with the nozzle gap 14 and the nozzle bore 17 is completely free of the nozzle housing 23. Liquid will flow through the holes or the gaps 3, 8 in the cup 1 and into the cavity of the cup. Because of a limited gap width 14 between the mandrel face 13 and the peripheral face 12 of the cup, a relatively high liquid pressure is provided in the cavity. This causes liquid to flow into the centre hole 10 of the mandrel via the holes 11 in the mandrel 7. Liquid flows through the mandrel 7 and out of the smaller hole 17 in the mouth of the mandrel. The size of the hole 17 is adjusted such that the liquid pressure in the cavity of the cup remains relatively high.

Replace the paragraph extending from page 10, line 1 to line 10 with the following paragraph:

The air turbulences that occur around the liquid atomizer nozzle when liquid is distributed from the gap 14 (second nozzle) and the bore 17 (first nozzle) mean that the liquid distribution from the gap 14 smooths the liquid distribution from the bore 17 and automatically compensates for missing liquid coverage in shadow areas such that the liquid atomizer unit distributes a homogeneous distribution of liquid droplets over a very large coverage area, with slightly larger water drops in the outermost periphery. This is an advantage, because it causes the walls to be wetted slightly more than for traditional water mist systems, which reduces the risk of fire spreading along the walls, without this causing major damage.